

PS-LX30

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model



SPECIFICATIONS

Turtable

Platter	30 cm (12 in.), aluminum-alloy diecast
Motor	Linear torque BSL (brushless and slotless) motor
Drive system	Direct drive
Control system	FG servo control system
Speed	33 1/3 rpm, 45 rpm
Wow and flutter	0.03% (WRMS)* 0.035% (WRMS) ±0.045% (DIN)
Signal-to-noise ratio	75 dB (DIN-B)
Automatic system	Lead-in, return, reject, repeat

Tonearm

Type	Statically balanced
Pivot-to-stylus length	200 mm (7 7/8 in.)
Total length	235 mm (9 3/8 in.)
Tracking error	+3°30', -1°

Cartridge

Type	Moving magnet type
Frequency response	20 Hz to 20 kHz
Tracking force	2.0 g
Stylus	Sony ND-143G (conical 0.6 mil diamond)

— Continued on page 2 —

*This new measuring method concerns only the turntable assembly, including the platter. It excludes wow and flutter caused by the tonearm, the cartridge, or the record. Measured by obtaining signal from magnetic pick-up head.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

STEREO TURNTABLE SYSTEM
SONY[®]



MICROFILM

AUD

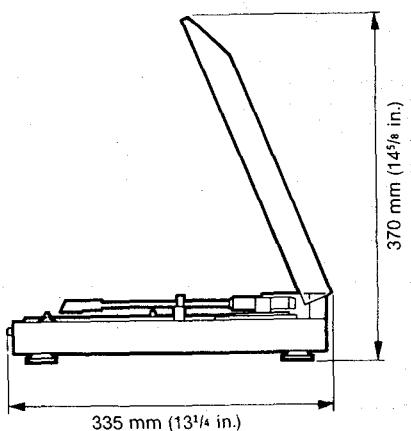
General

Power requirements US, Canadian model: 120 V ac 60 Hz
 AEP, G-AEP model: 220 V ac 50/60 Hz
 UK model: 240 V ac 50/60 Hz
 E model: 110 – 120 or 220 – 240 V ac
 adjustable 50/60 Hz

Power consumption 7 W

Dimensions Approx. 355 x 80 x 330 mm (w/h/d)
 (14 x 3 $\frac{1}{3}$ x 13 in.)
 including projecting parts and controls

With the dust cover opened



Weight

Approx. 3.5 kg (7 lbs 11 oz), net
Approx. 4.5 kg (9 lbs 15 oz), in shipping
carton

FEATURES

Automatic turntable system

Automatic lead-in, return, reject and repeat functions are activated by merely pushing the keys.

Linear torque BSL motor

Direct drive system with Sony's unique BSL (Brushless and slotless) motor which has a high signal-to-noise ratio to virtually eliminate wow and flutter. The motor's high torque assures a quick attainment of 33 $\frac{1}{3}$ rpm after only $\frac{2}{3}$ revolution.

Low-mass tonearm and cartridge

The low-mass tonearm and cartridge allow the stylus to track with greater accuracy.

Synchronized operation with the Sony cassette decks

When the tonearm lowers onto the lead-in groove of a record, the cassette deck stand-by mode is released and the record mode assumed. When play finishes, the cassette deck is automatically set first in the record muting mode, then in the pause mode. This synchronized operation is possible with Sony cassette decks equipped with a three-pin synchro remote control connector.

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

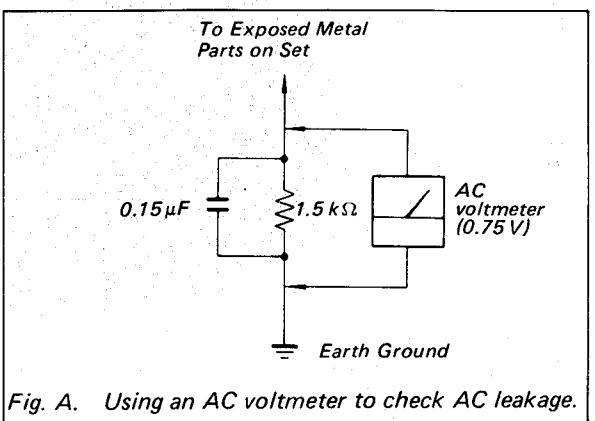
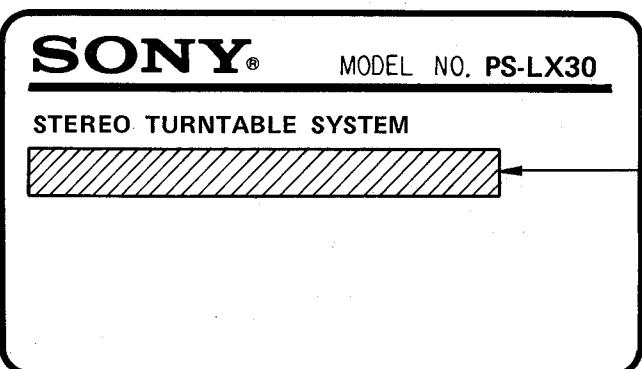


Fig. A. Using an AC voltmeter to check AC leakage.

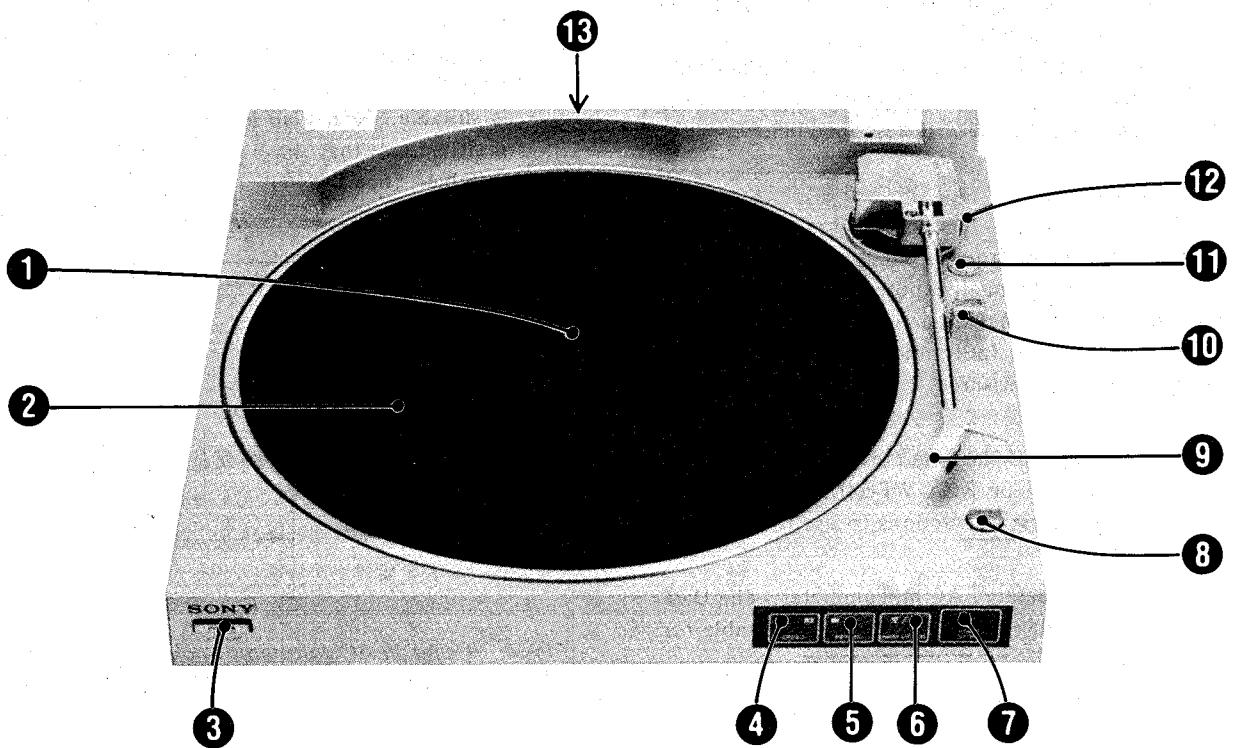
MODEL IDENTIFICATION

— Specification Label —



US, Canadian model: 120 V 60 Hz 7 W
 AEP, G-AEP model: 220 V 50/60 Hz 7 W
 (G-AEP model is W-GERMANY model)
 UK model: 240 V 50/60 Hz 7W
 E model: 110 – 120 V, 220 – 240 V 50/60 Hz 7W

LOCATION OF CONTROLS

**① Center spindle****② Rubber mat****③ POWER switch**

Press to turn on the turntable. To turn the turntable off, press it again.

④ SPEED selector and indicators

Selects the record speed. When the POWER switch is turned on, the speed is always 33 1/3 rpm and the indicator on the right illuminates. When the selector is pressed, 45 rpm is selected and the indicator on the left illuminates.

⑤ REPEAT key and indicator

Press this key to repeat play. The indicator illuminates and repeat play continues until this key is pressed to stop it. If the START/STOP key is pressed during repeat play, the tonearm returns to the arm rest and the turntable stops rotating.

⑥ ARM LIFTER key

Used to lift or lower the tonearm.

⑦ START/STOP key

Press this key to start the record play. To stop during play, press it again.

⑧ Record SIZE SELECTOR

Selects the record size.

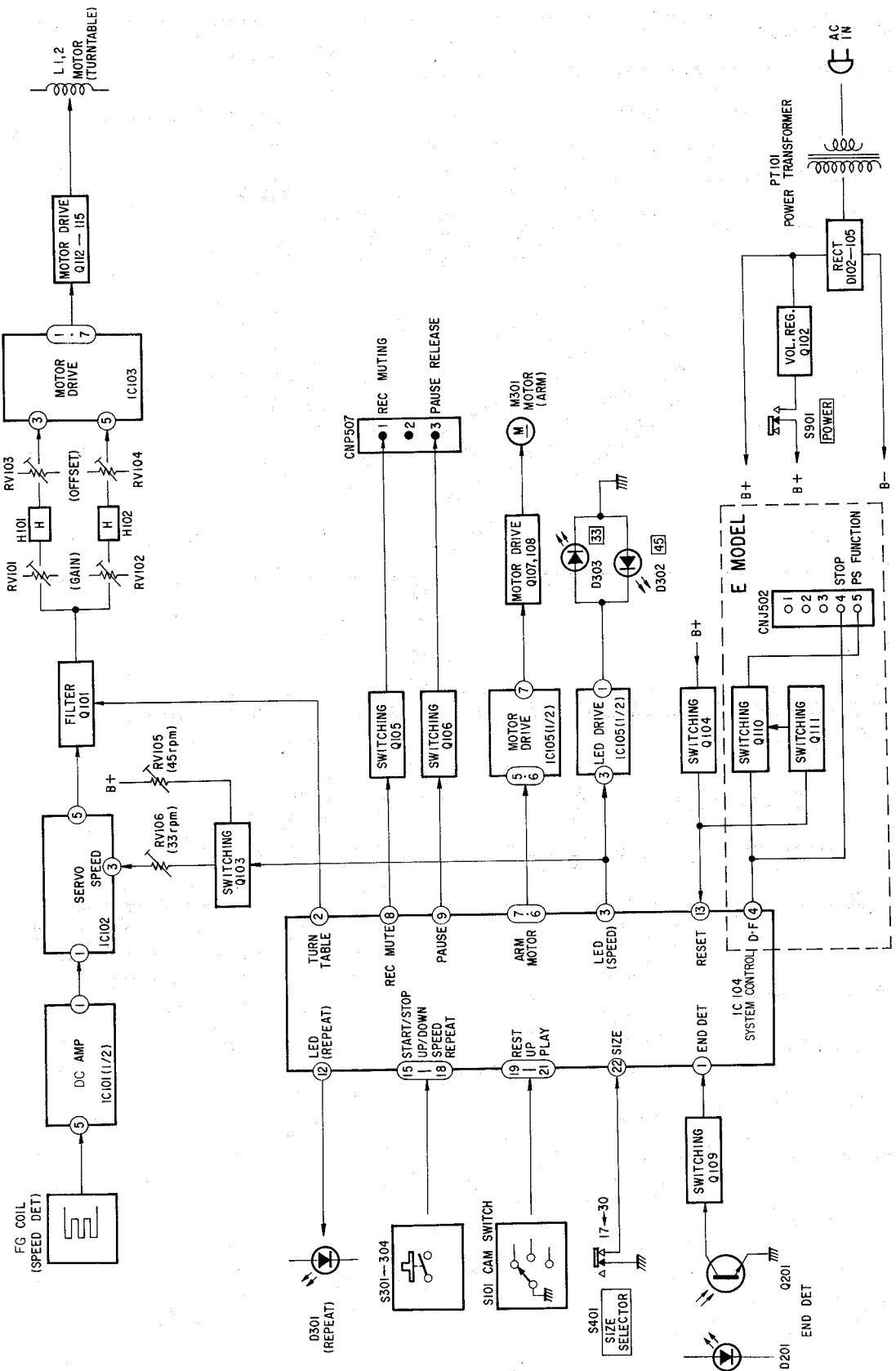
⑨ Cartridge**⑩ Arm rest****⑪ ANTI-SKATING compensator****⑫ Tonearm drop-point adjustment hole****⑬ Synchro remote control connector (rear)**

Synchronized recording from disc to tape is possible on specified Sony cassette decks equipped with a 3-pin synchro remote control connector.

SECTION 1

OUTLINE

1-1. BLOCK DIAGRAM



SECTION 2 DISASSEMBLY

2-1. REMOVAL

- Follow the disassembly procedure in the numerical order given.

BOTTOM BOARD

① Take off the turntable sheet and turntable.

④ BVTP3 x 20 type 1

⑤ insulator assy

bottom board

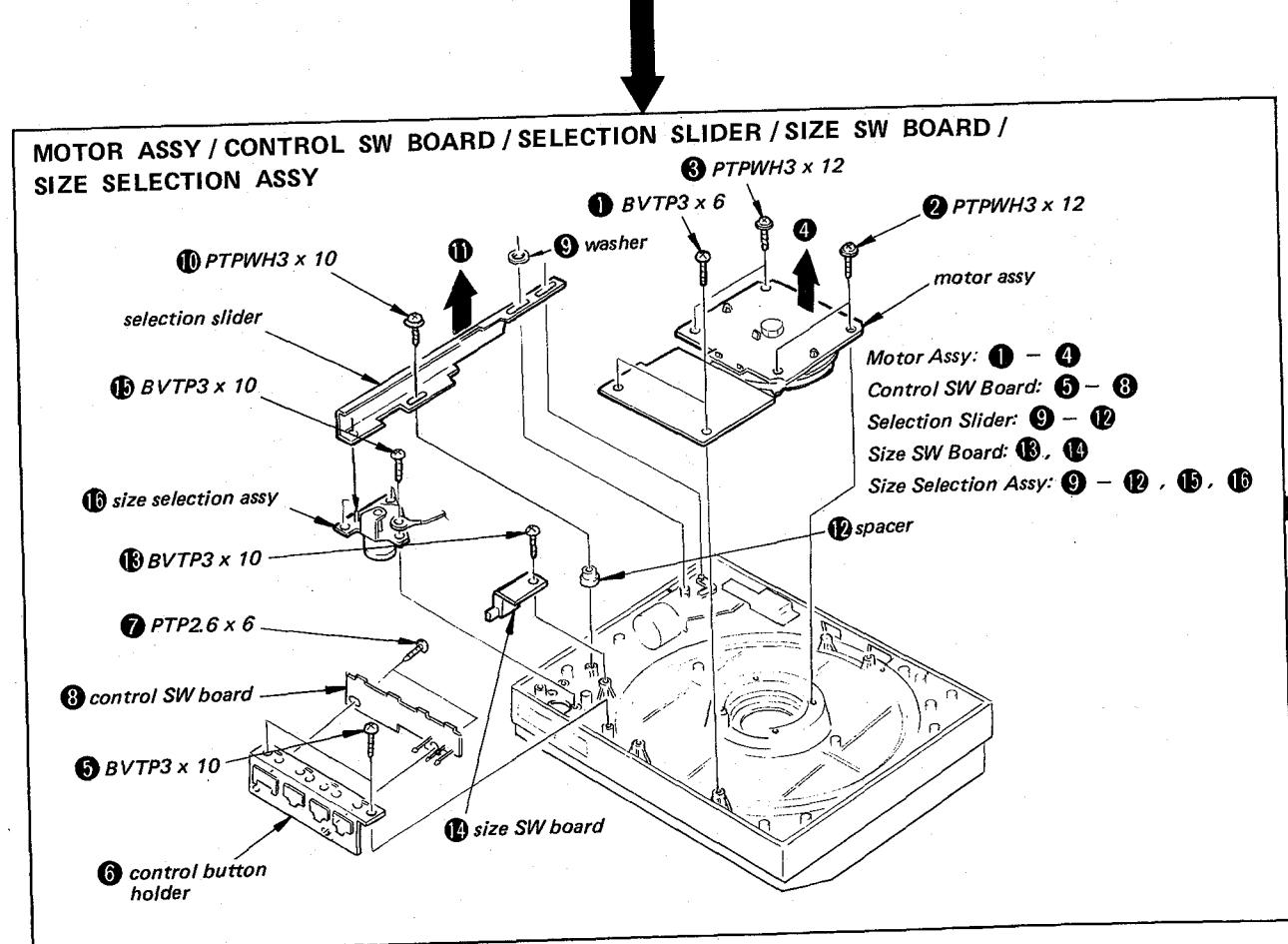
⑦ PTPWH3 x 12

② BVTP3 x 20 type 1

③ insulator assy

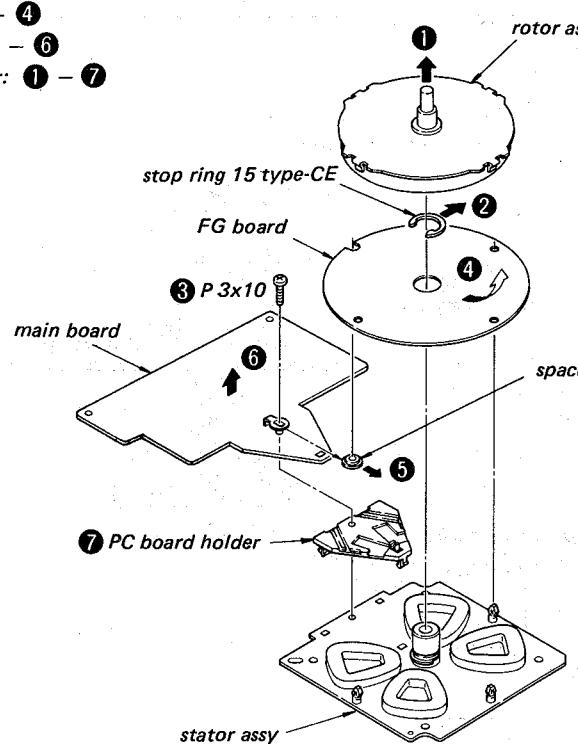
⑥ PTPWH3 x 12

⑧

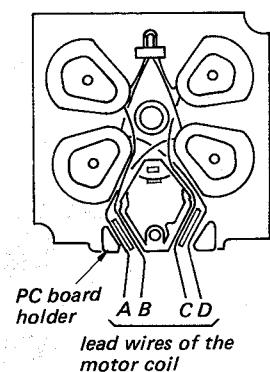


ROTOR ASSY / FG BOARD / MAIN BOARD / PC BOARD HOLDER

Rotor Assy: ①
FG Board: ① – ④
Main Board: ① – ⑥
PC Board Holder: ① – ⑦

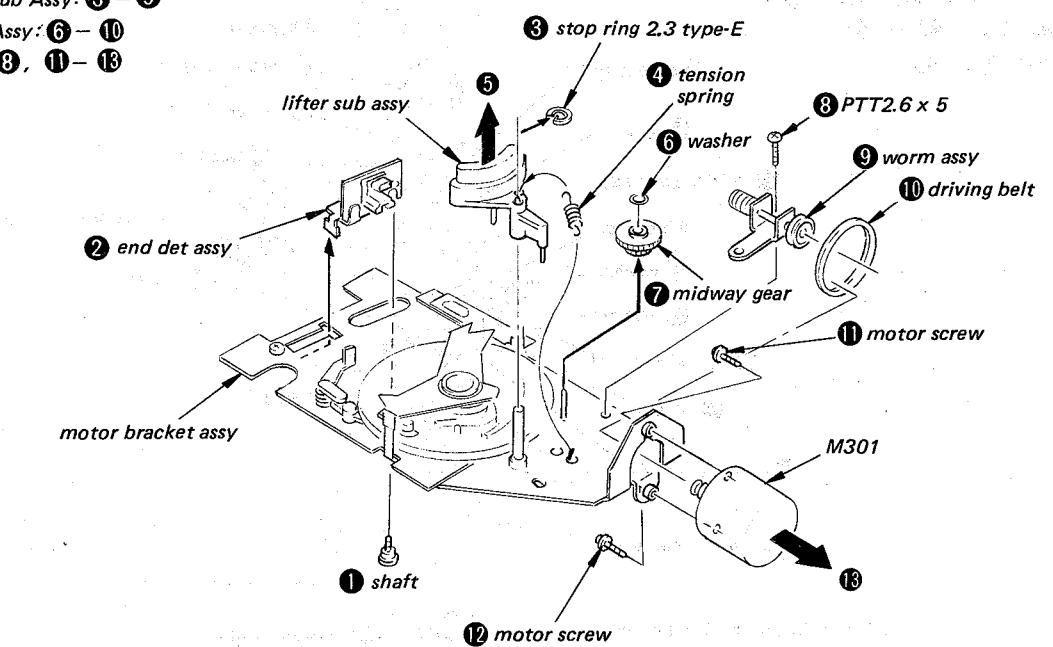


- When installing, run the lead wires of the motor coil through the grooves of the PC board holder.



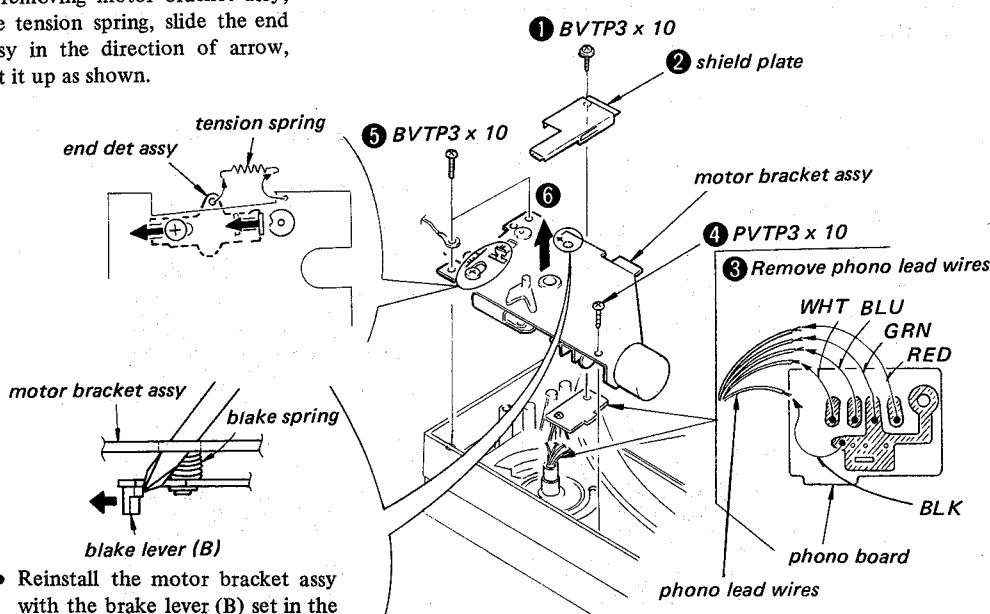
END DET ASSY / LIFTER SUB ASSY / WORM ASSY / M301

End Det Assy: ①, ②
Lifter Sub Assy: ③ – ⑤
Worm Assy: ⑥ – ⑩
M301: ⑧, ⑪ – ⑬



MOTOR BRACKET ASSY

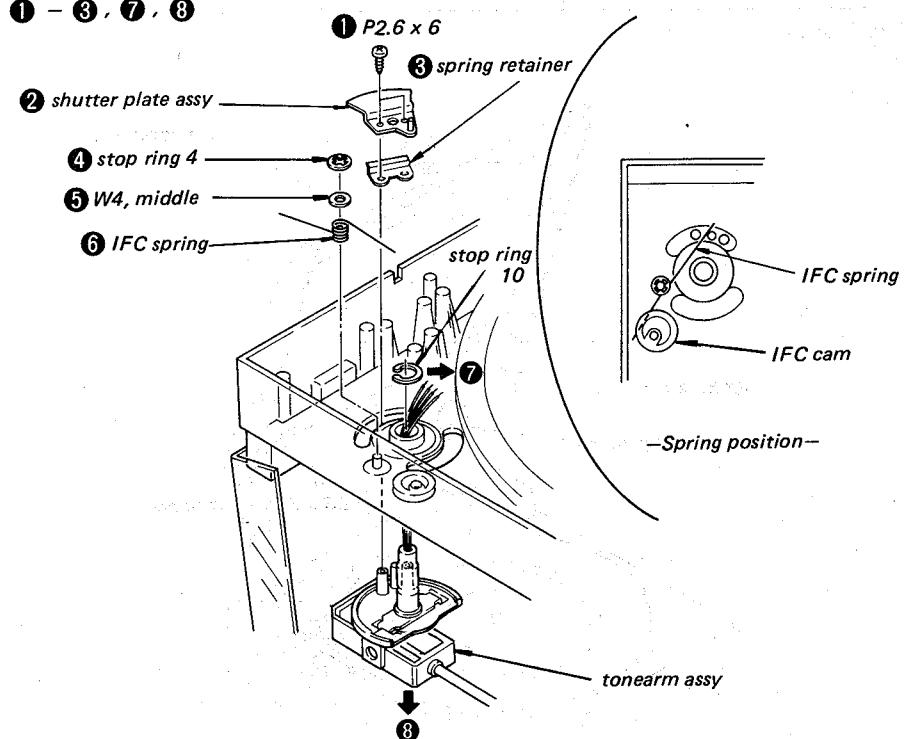
- When removing motor bracket assy, remove tension spring, slide the end det assy in the direction of arrow, and lift it up as shown.



- Reinstall the motor bracket assy with the brake lever (B) set in the direction of arrow by using a screwdriver.

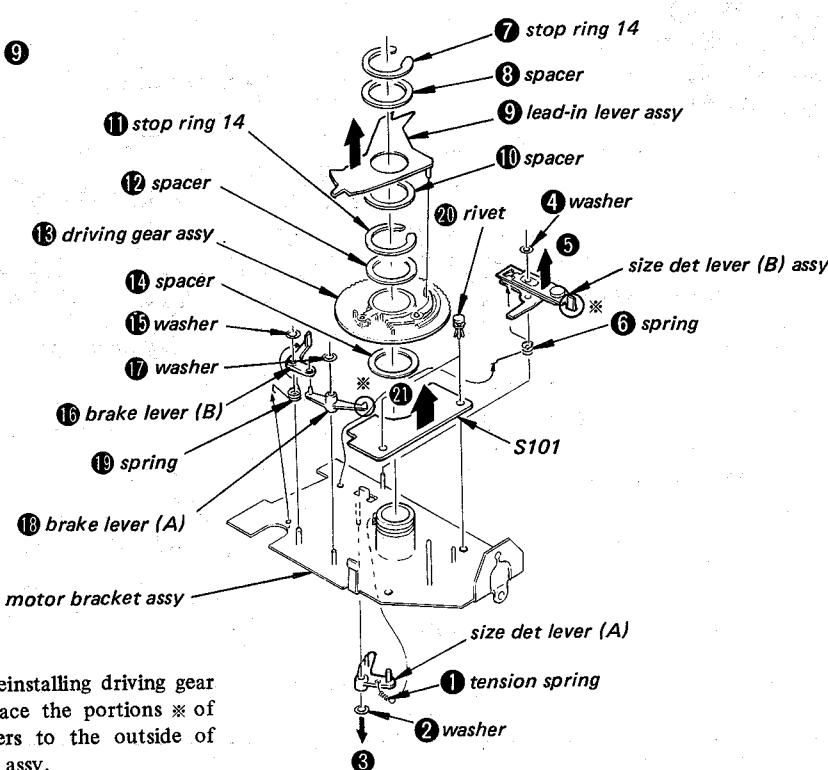
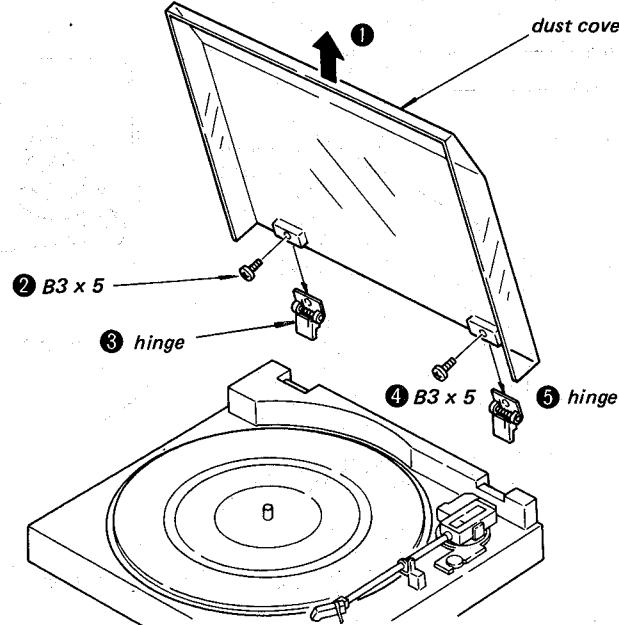
IFC SPRING / TONEARM ASSY

IFC Spring: ① – ⑥
Tonearm Assy: ① – ③, ⑦, ⑧

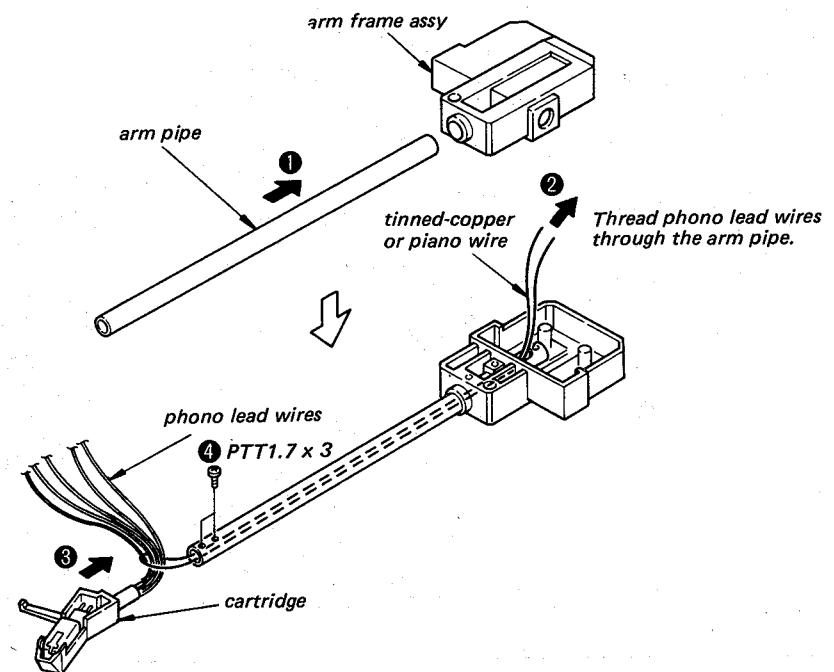
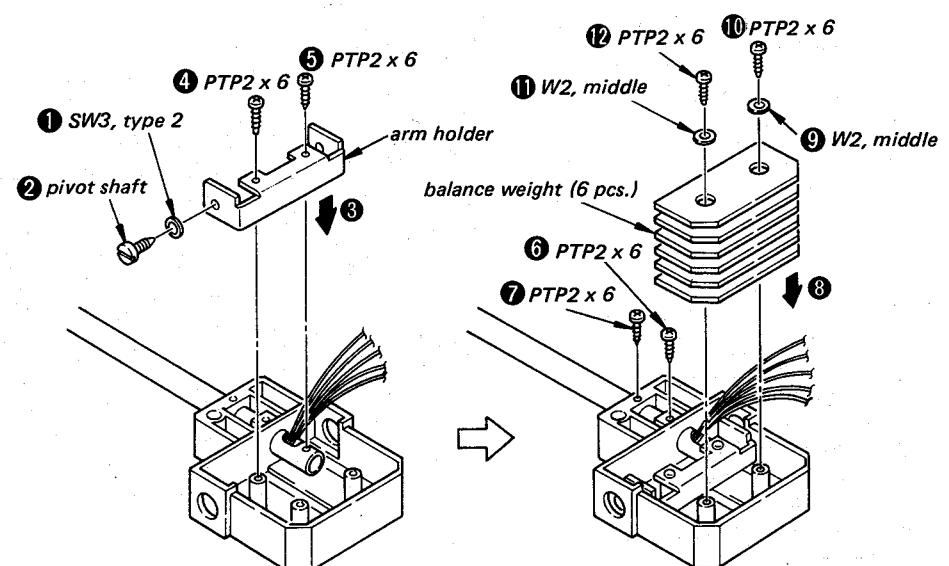


SIZE DET LEVER / BRAKE LEVER / LEAD-IN LEVER ASSY / S101

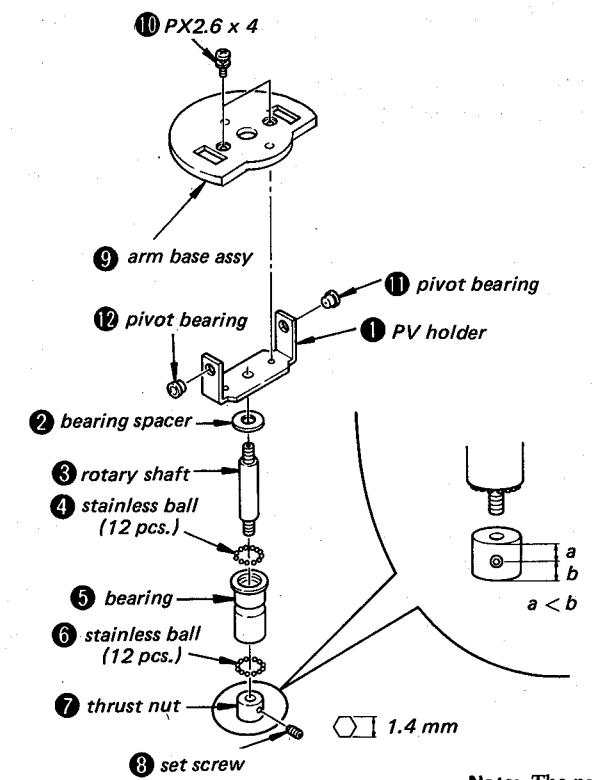
Size Det Lever: ① - ⑥
Lead-in Lever Assy: ⑦ - ⑨
Brake Lever: ⑦ - ⑯
S101: ⑦ - ㉑

**DUST COVER ASSY****2-2. TONEARM ASSEMBLY**

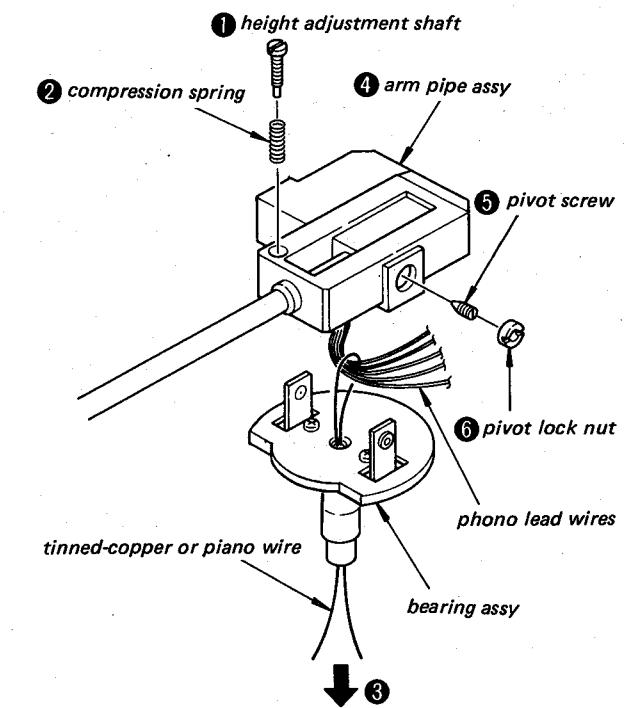
- Follow the assembly procedure in the numerical order given.

TONEARM ASSY (1)**TONEARM ASSY (2)**

TONEARM ASSY (3)



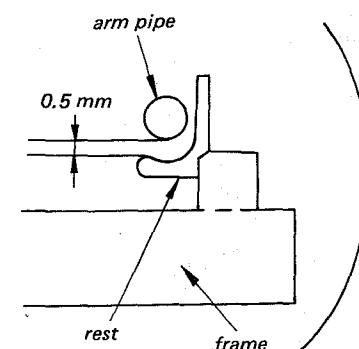
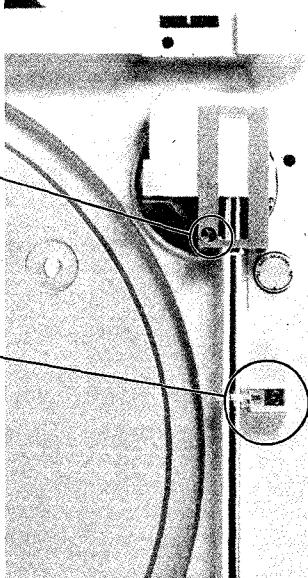
TONEARM ASSY (4)



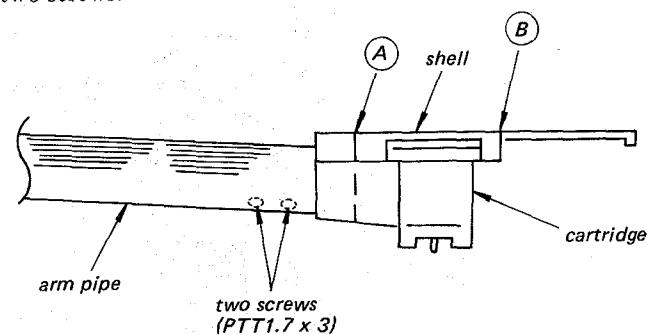
Thread phono lead wires through the bearing assy.

**SECTION 3
ADJUSTMENTS****3-1. MECHANICAL ADJUSTMENTS****Tonearm Height Adjustment**

Adjust the height of the adjustment screw so that the clearance between the rest and the arm pipe is approx. 0.5 mm.

**adjustment screw****Cartridge Level Adjustment**

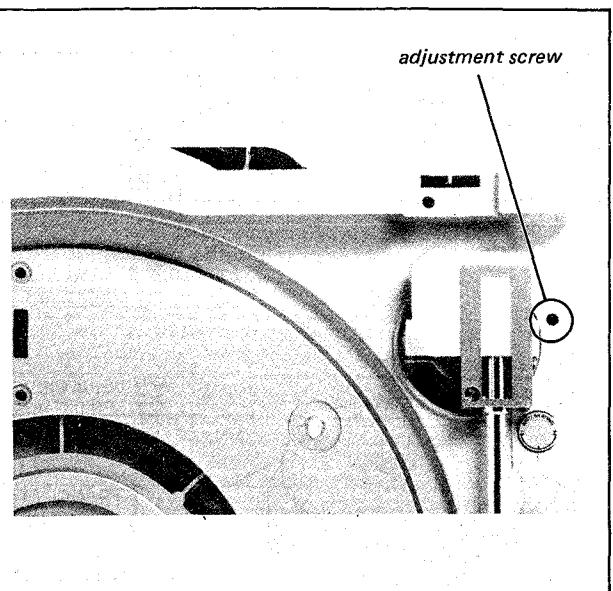
Loosen the two screws and adjust the inclination of the cartridge so that the line of the point (A) and point (B) becomes horizontal against turntable.
After the adjustment, secure the two screws.



Drop Point Adjustment

1. Set the anti-skating scale to the center.
2. Speed SW: 33 rpm, Size Selection SW: 30 cm
3. Place a test record (YSFC-16) on the turntable. And press the START/STOP switch for lead-in.
4. Turn the adjustment screw so that stylus tip drops on the record at 10 – 12 count position.

Turning direction	Drop points
clockwise	inward (count increases)
counter clockwise	outward (count decreases)



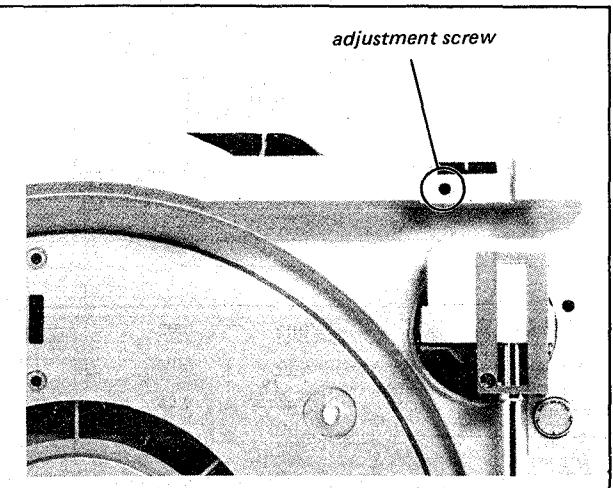
Note: The proper adjustment for 30 cm record is also correct for a 17 cm record.

Return Point Adjustment

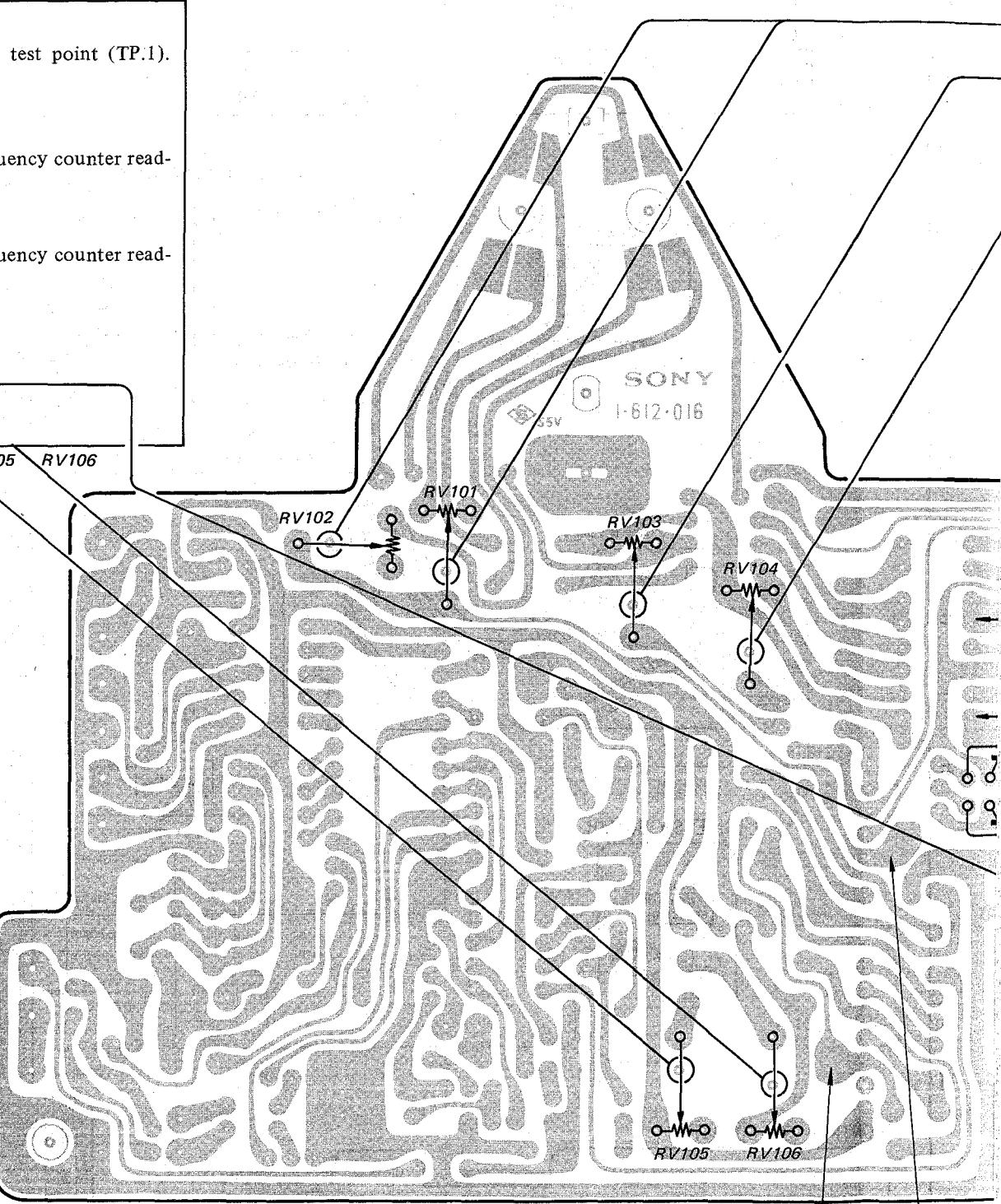
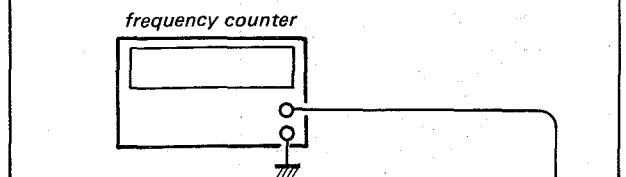
Bring the tonearm to the auto-return test groove (inside position) of the test record (YSFC-16), and adjust the screw for the tonearm at count 3 to 12.

Turning direction	Drop points
clockwise	inward (count increases)
counterclockwise	outward (count decreases)

Note: The normal auto-return position is between 59 mm (2-3/8") and 64 mm (2-1/2") from the center shaft.

**3-2. ELECTRICAL ADJUSTMENTS****Speed Adjustment**

1. Connect frequency counter to test point (TP.1).
2. START switch: ON
3. SPEED switch: 45 rpm
4. Adjust RV105 so that the frequency counter reading is 95.72 – 96.26 Hz.
5. SPEED switch: 33 rpm
6. Adjust RV106 so that the frequency counter reading is 70.90 – 71.32 Hz.

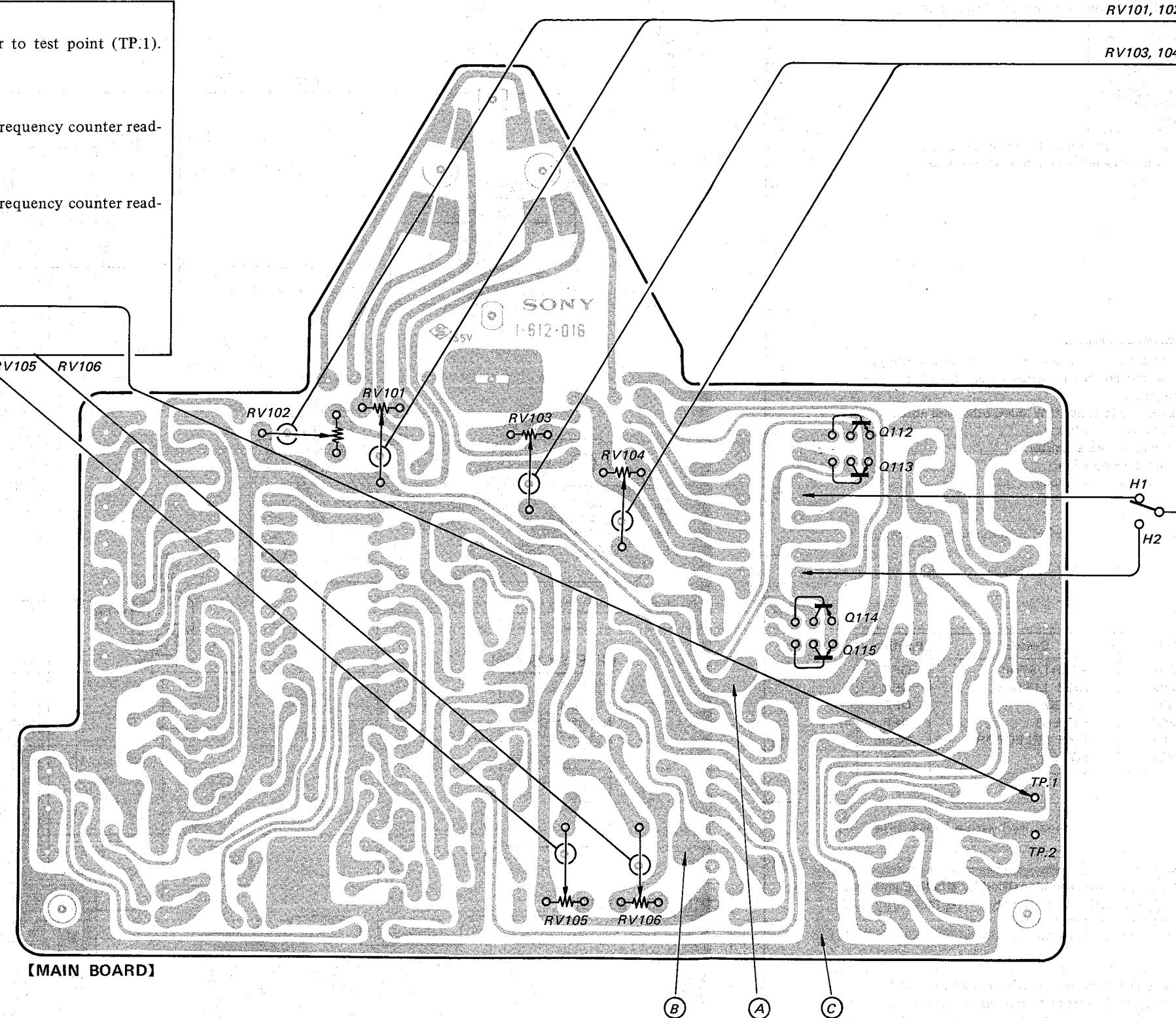
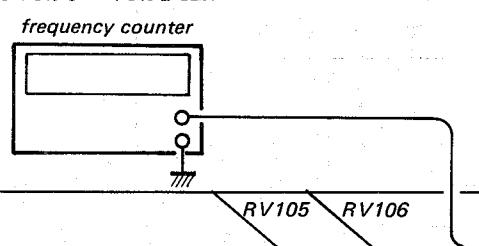


【MAIN BOARD】

3.2. ELECTRICAL ADJUSTMENTS

Speed Adjustment

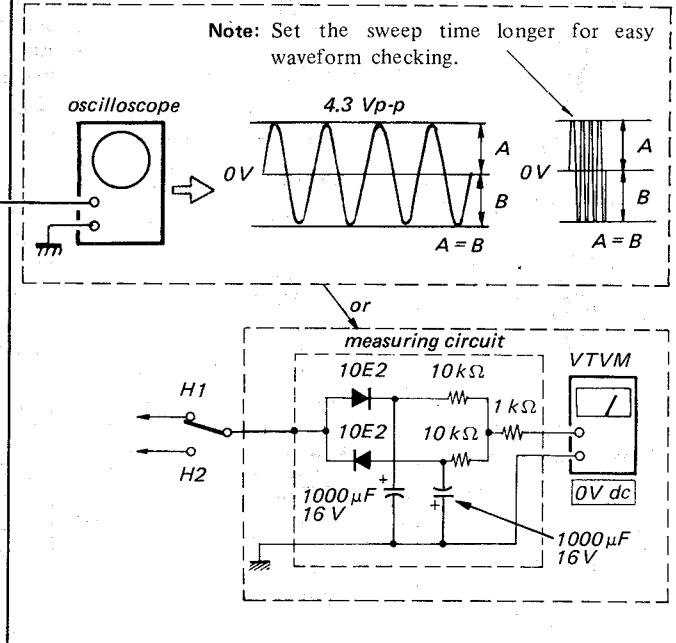
1. Connect frequency counter to test point (TP.1).
2. START switch: ON
3. SPEED switch: 45 rpm
4. Adjust RV105 so that the frequency counter reading is 95.72 – 96.26 Hz.
5. SPEED switch: 33 rpm
6. Adjust RV106 so that the frequency counter reading is 70.90 – 71.32 Hz.



Gain/Offset Adjustment

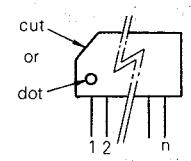
1. Connect IC102 pin 5 to the ground pattern. (Connect the pattern B to C with a jumper lead.)
2. Apply DC 1 V to the emitter of Q103. (Pattern A).
3. Adjust RV101 (H1) and RV102 (H2) so that the emitter voltage of Q112, 113 (H1) and Q114, 115 (H2) are 4.3 Vp-p. ... Gain Adjustment
4. Adjust RV103 (H1) and RV104 (H2) so that the emitter waveforms of Q112, 113 (H1) and Q114, 115 (H2) are as shown below (or so that DC potential is 0 V). ... Offset Adjustment
5. After adjustment, remove the jumper lead connected in step 1.

Note: If the waveforms do not appear at this adjustment, the motor circuit will be defective.

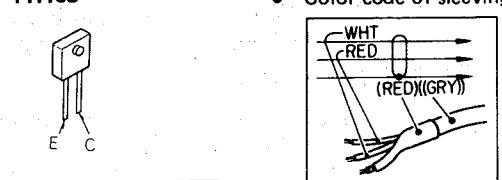


SECTION 4 DIAGRAMS

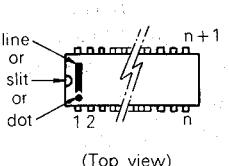
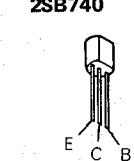
• Semiconductor Lead Layouts

M5218L
CX-065B

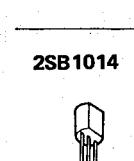
PH103



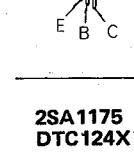
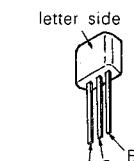
LM6417E-343

2SC3112
2SD1388
2SB740

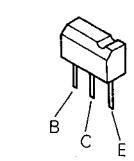
2SD774



2SB1014

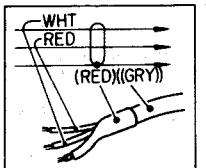
2SA1175
DTC124XF

DTA114EF



Note on Mounting Diagram

- Color code of sleeving over the end of the jacket.



- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : B+ pattern
- ▨ : B- pattern

Note on Schematic Diagram

- All capacitors are in μ F unless otherwise noted. pF: $\mu\mu$ F 50VW or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $1/8$ W unless otherwise noted. k Ω : 1000 Ω , M Ω : 1000 k Ω
- : nonflammable resistor.
- : panel designation.
- △ : adjustment for repair.
- : B+ bus.
- - : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Reading are taken under no-signal conditions with a VOM.
- Switch

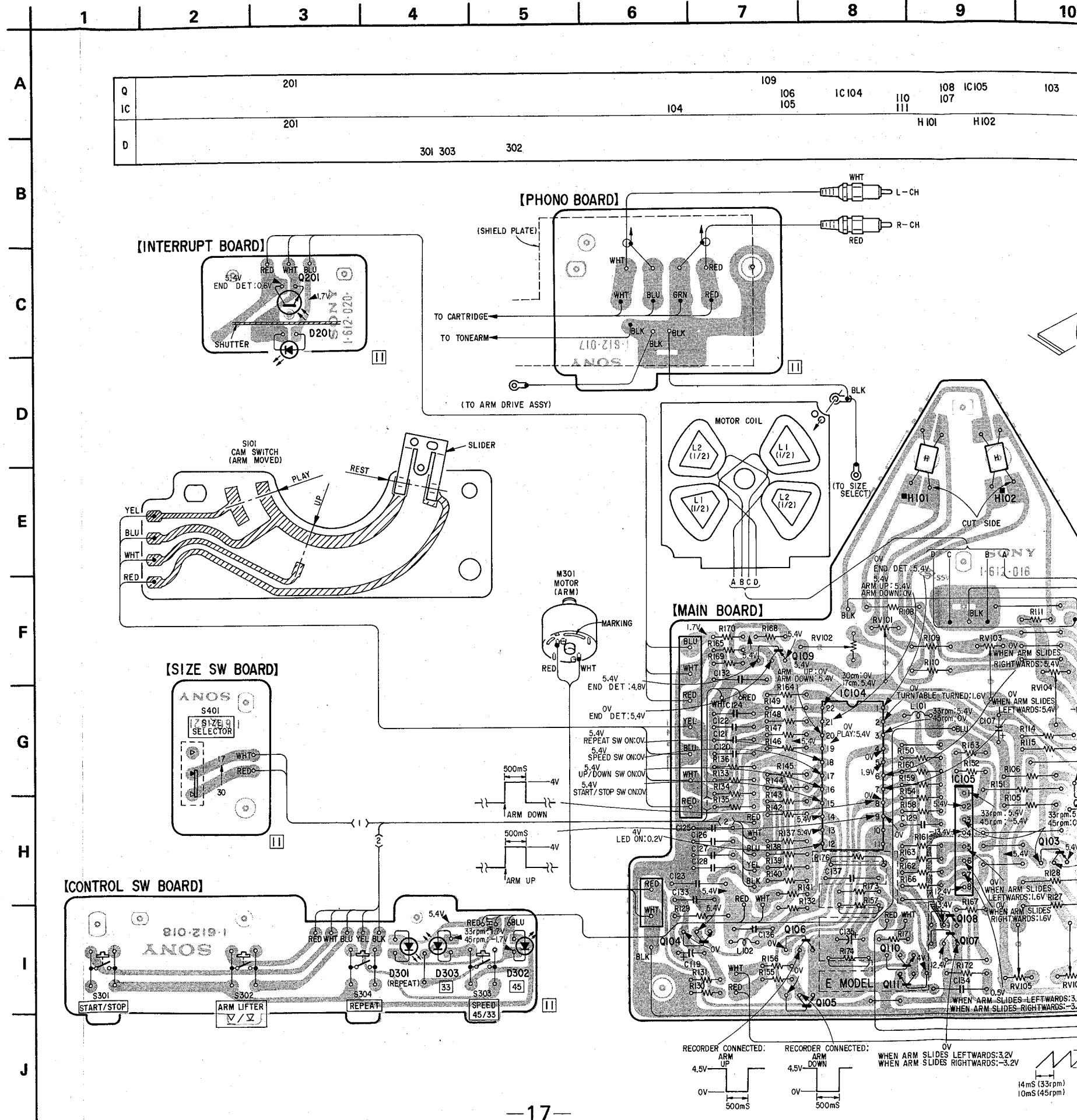
Ref. No.	Switch	Position
S301	START/STOP	OFF
S302	ARM LIFTER	OFF
S303	SPEED	OFF
S304	REPEAT	OFF
S401	SIZE SELECTOR	30 cm
S901	POWER	OFF

Note: Voltages are measured with a VOM (50k Ω /V).

Note: The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

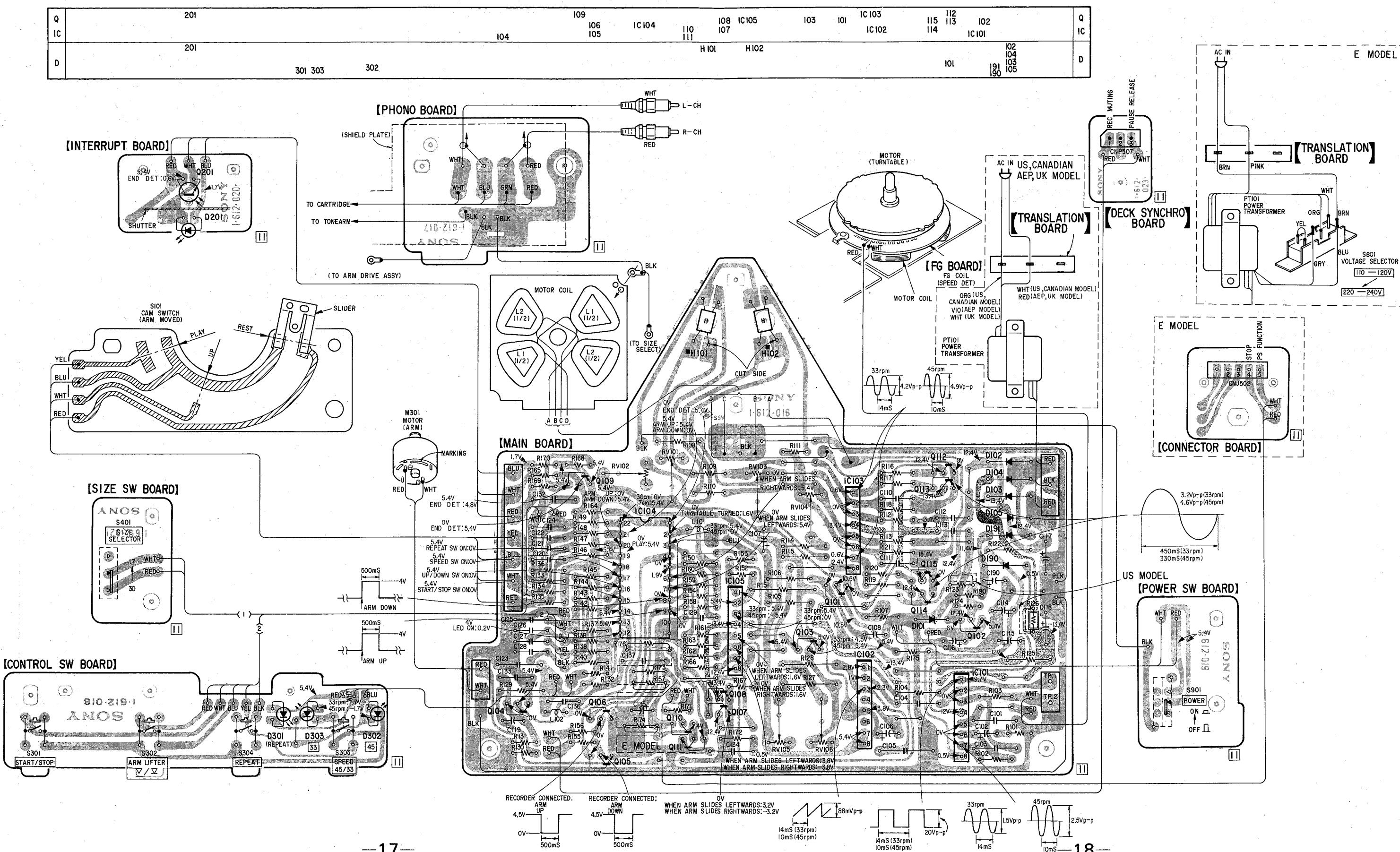
Note: Les composants identifiés par un trame et une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

4-1. MOUNTING DIAGRAM



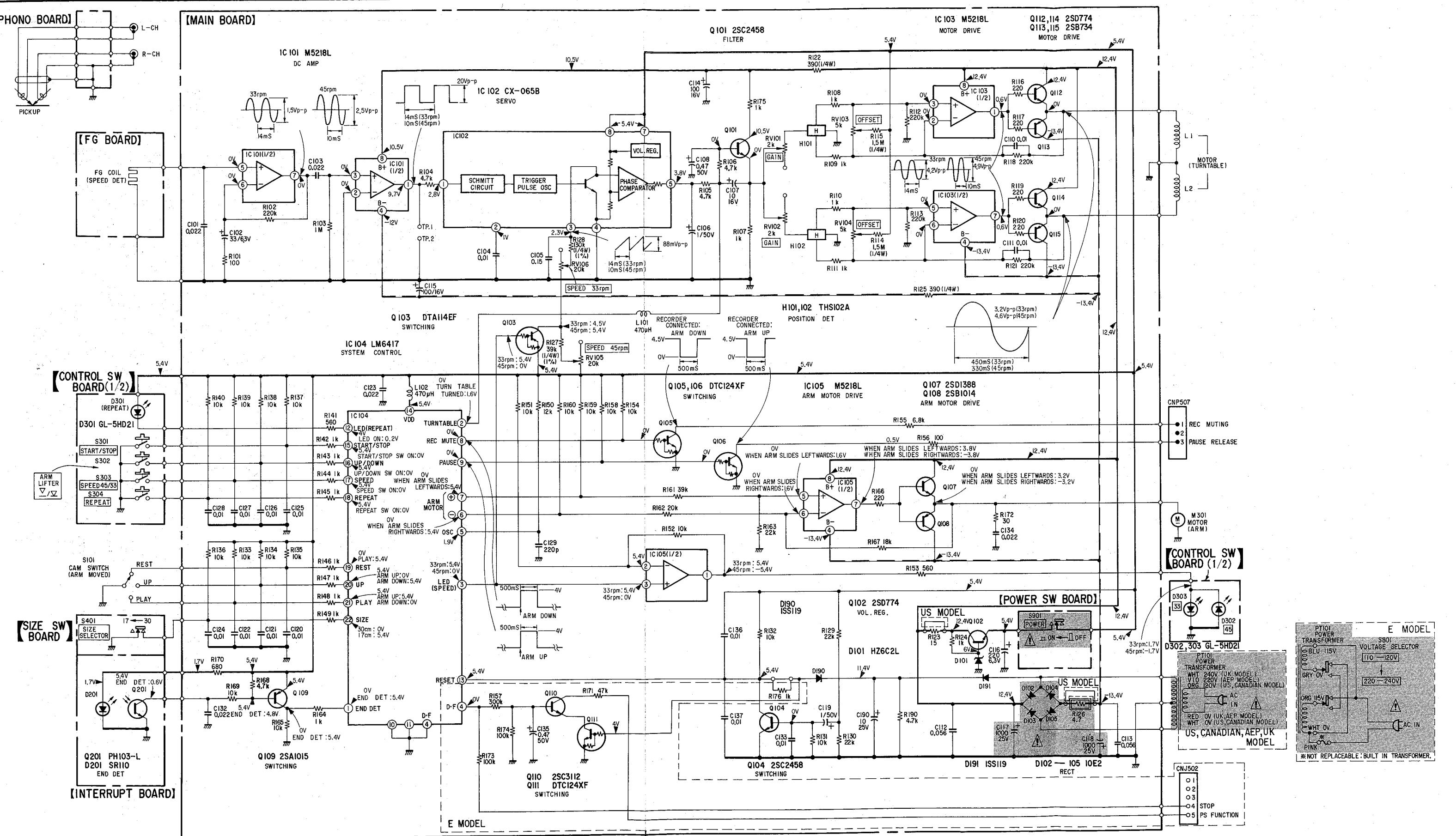
4-1. MOUNTING DIAGRAM

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16

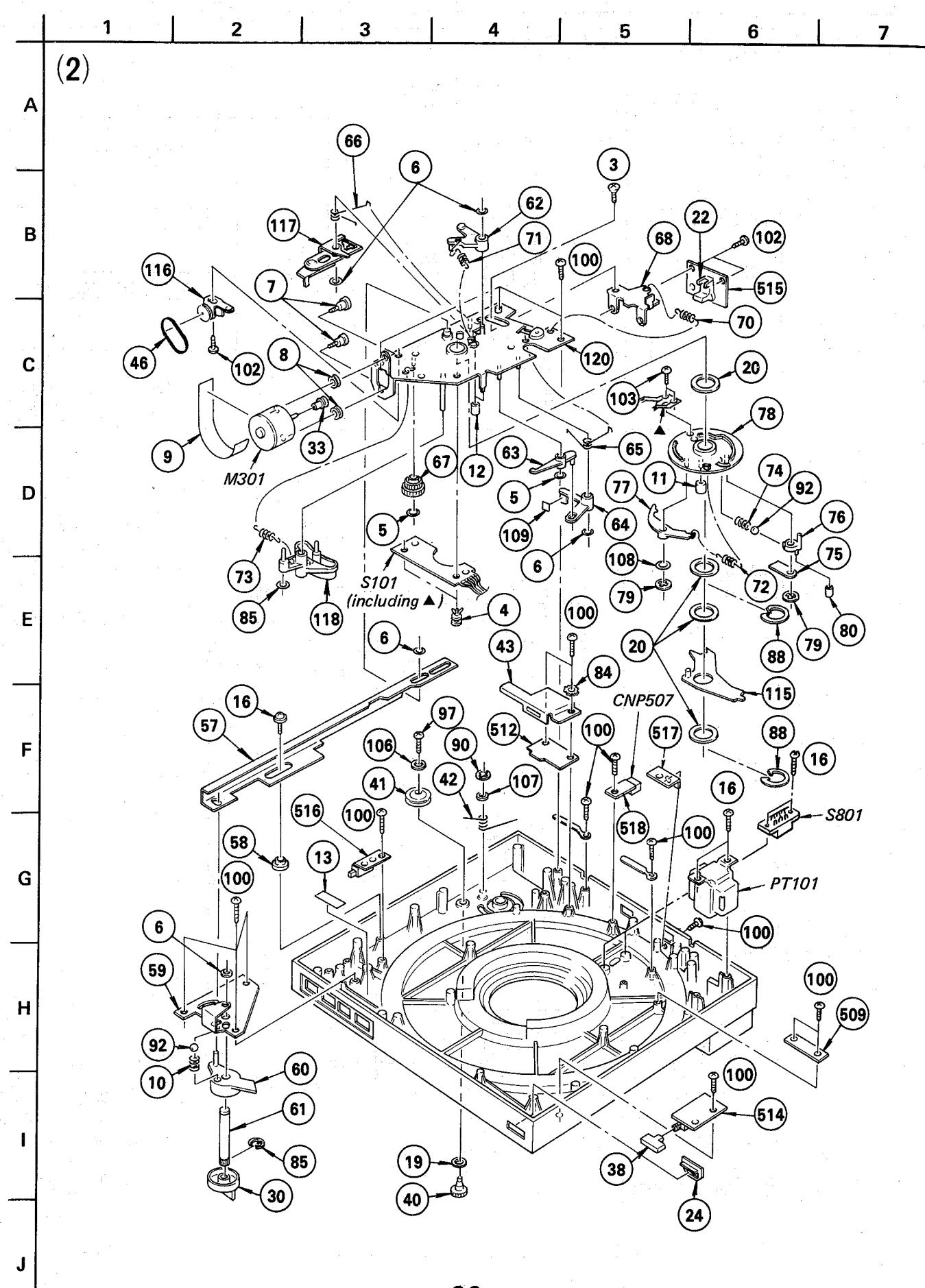
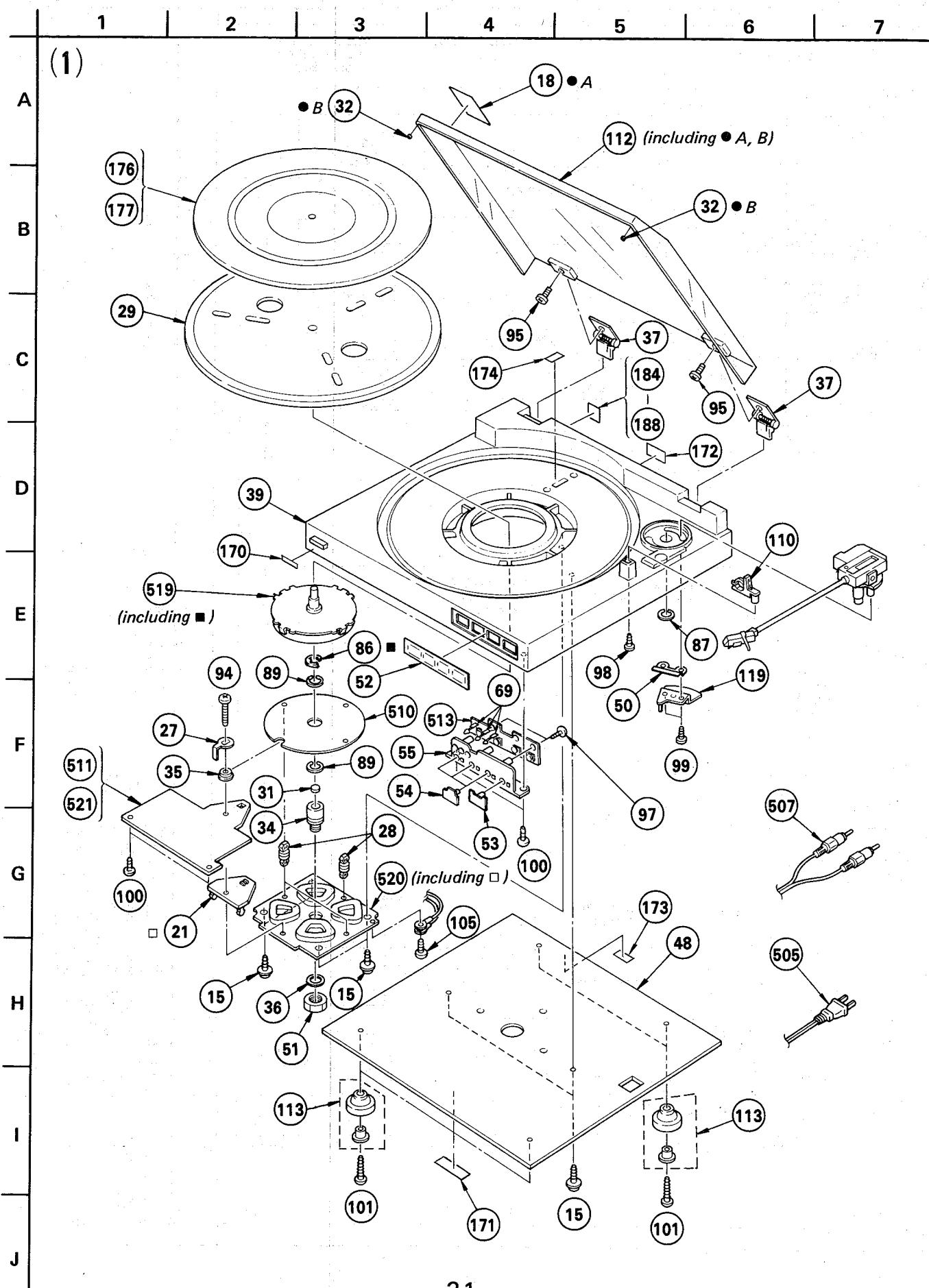


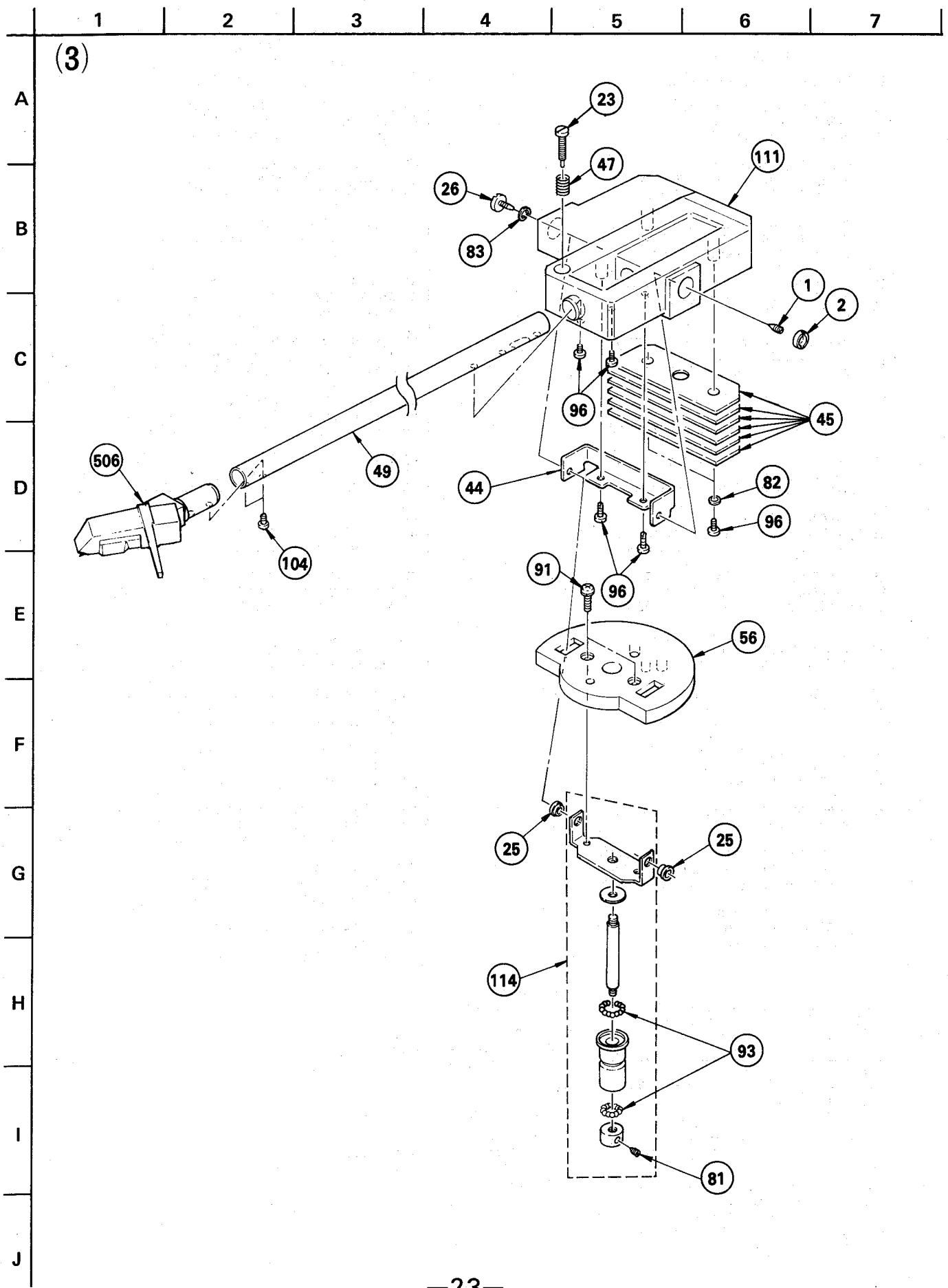
SCHEMATIC DIAGRAM

- See page 16 for notes



EXPLODED VIEWS AND PARTS LIST





GENERAL SECTION

No.	Part No.	Description
1	2-203-518-61	SCREW, PIVOT
2	2-203-519-00	NUT (A), LOCK, PIVOT
3	3-465-048-00	SHAFT
4	3-531-576-11	RIVET
5	3-558-708-01	WASHER, STOPPER
6	3-558-708-21	WASHER, STOPPER
7	3-570-027-00	SCREW, MOTOR
8	3-570-118-00	CUSHION, MOTOR
9	3-575-442-00	PLATE, SHIELD, MOTOR
10	3-576-098-00	SPRING, COMPRESSION
11	3-579-008-00	RUBBER (S1), BRAKE
12	3-579-032-00	RUBBER, BRAKE
13	3-701-030-00	LABEL, SERIAL NUMBER
14	
15	3-703-136-00	SCREW, TAPPING
16	3-703-137-00	SCREW, TAPPING
17	
18	3-703-705-01	STICKER, SONY SYMBOL (30)
19	4-844-041-11	WASHER, (N)
20	4-853-222-00	SPACER
21	4-857-642-00	HOLDER, PC BOARD
22	4-869-965-00	PLATE, SLIT
23	4-873-347-00	SHAFT, ADJUSTMENT, HIGH
24	4-875-501-00	GUIDE, POWER KNOB
25	4-877-814-00	BEARING, PIVOT
26	4-877-816-00	SHAFT, PIVOT
27	4-881-629-00	PLATE (A), GROUND
28	4-881-636-11	SUPPORT (TMD), PC
29	4-883-720-00	TURNTABLE
30	4-885-134-00	KNOB, SELECTOR
31	4-885-135-00	RETAINER, THRUST
32	4-885-183-00	CUSHION (D)
33	4-885-704-03	PULLEY, MOTOR
34	4-885-724-00	BEARING
35	4-885-727-00	SPACER
36	4-885-728-00	PACKING
37	4-885-731-11	HINGE
38	4-885-734-00	BUTTON, POWER
39	4-887-901-21	(E).....FRAME
39	4-887-901-31	(US,Canadian)...FRAME
39	4-887-901-41	(AEP,UK).....FRAME
40	4-887-902-00	KNOB, IFC
41	4-887-903-00	CAM, IFC
42	4-887-904-00	SPRING

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers ($\Delta-\Delta\Delta-\Delta\Delta\Delta-XX$ or $\Delta-\Delta\Delta\Delta-\Delta\Delta\Delta-X$) may be different from those used in the set.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

GENERAL SECTION

No.	Part No.	Description
43	♦;4-887-905-00	PLATE, SHIELD
44	♦;4-887-906-00	HOLDER, ARM
45	♦;4-887-907-00	WEIGHT, BALANCE.
46	4-887-915-00	BELT, DRIVING
47	4-887-918-00	SPRING, COMPRESSION
48	♦;4-887-920-00	BOARD, BOTTOM
49	4-887-922-00	PIPE, ARM
50	4-887-955-00	RETAINER, SPRING
51	♦;4-903-330-01	NUT (TMD), BEARING
52	4-904-201-01	SHEET, CONTROL BUTTON
53	♦;4-904-202-01	BUTTON, START
54	♦;4-904-203-01	BUTTON, CONTROL
55	♦;4-904-204-01	HOLDER, CONTROL BUTTON
56	♦;4-904-205-01	BASE, ARM
57	♦;4-904-206-01	SLIDER, SELECTION
58	4-904-207-01	SPACER, SLIDER
59	♦;4-904-208-01	BRACKET, SIZE SELECTION
60	4-904-209-01	LEVER, SIZE SELECTION
61	♦;4-904-210-01	SHAFT, SELECTOR KNOB
62	4-904-211-01	LEVER (A), SIZE DETECTION
63	4-904-212-01	LEVER (A), BRAKE
64	4-904-213-01	LEVER (B), BRAKE
65	4-904-215-01	SPRING
66	4-904-216-01	SPRING
67	4-904-217-01	GEAR, MIDWAY
68	♦;4-904-218-01	BRACKET, END DETECTION
69	♦;4-904-219-01	SPACER, LED
70	4-904-220-01	SPRING, TENSION
71	4-904-221-01	SPRING, TENSION
72	4-904-222-01	SPRING, TENSION
73	4-904-223-01	SPRING, TENSION
74	4-904-224-01	SPRING, COMPRESSION
75	♦;4-904-225-01	BRACKET, CAM
76	4-904-226-01	CAM, REVERSE
77	4-904-227-01	LEVER, CLUTCH
78	4-904-228-01	GEAR, DRIVING
79	4-904-252-01	RING, STOPPER (CA-1.5)
80	4-904-256-01	RUBBER, RETURN
81	7-621-712-17	SET-SCREW, SLOT 2.6X2 CUP POINT
82	7-623-105-12	W 2,MIDDLE
83	7-623-208-22	SW 3, TYPE 2
84	7-623-422-07	LW 3, TYPE B
85	7-624-105-04	STOP RING 2.3, TYPE -E
86	7-624-133-24	STOP RING 7, TYPE-CE
87	7-624-133-54	STOP RING 10, TYPE-CE

CAPACITORS:

MF: μ F, PF: μ μ F.

RESISTORS

All resistors are in ohms.

F : nonflammable

COILS

MMH : mH, UH : μ H

SEMICONDUCTORS

In each case, U : μ , for example:
UA... : μ A..., UPA... : μ PA..., UPC... : μ PC,UPD... : μ PD...

GENERAL SECTION

No.	Part No.	Description
88	7-624-133-84	STOP RING 14, TYPE-CE
89	7-624-133-94	STOP RING 15, TYPE-CE
90	7-624-190-31	STOP RING 4, TYPE-CS
91	7-628-253-95	SCREW +PS 2.6X4
92	7-671-113-02	BALL, STEEL 3MM
93	7-671-151-01	STAINLESS, BALL 1/16INCH
94	7-682-149-13	SCREW +P 3X10
95	7-682-546-04	SCREW +B 3X5
96	7-685-104-14	SCREW +P 2X6 TYPE2 SLIT
97	7-685-133-14	SCREW +P 2.6X6 TYPE1
98	7-685-134-14	SCREW +P 2.6X8 TYPE2 NON-SLIT
99	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S
100	7-685-647-14	SCREW +BVTP 3X10 TYPE2 N-S
101	7-685-651-11	SCREW +BVTP 3X20 TYPE1
102	7-685-791-04	SCREW +PTT 2.6X5 (S)
103	7-685-799-04	SCREW +PTT 1.7X2.5
104	7-685-799-74	SCREW +PTT 1.7X3
105	7-685-871-01	SCREW +BVTT 3X6 (S)
106	7-688-002-11	W 2.6, MIDDLE
107	7-688-004-11	W 4, MIDDLE
108	7-688-008-04	W 1.7 SMALL
109	9-911-850-XX	FELT, BRAKE
110	X-4879-707-0	REST SUB ASSY, ARM
111	X-4887-903-0	FRAME ASSY, ARM
112	X-4887-907-0	COVER ASSY, DUST
113	X-4887-908-0	INSULATOR ASSY
114	X-4887-909-1	BEARING ASSY
115 ♀;X-4904-202-1	LEVER ASSY, LEAD-IN	
116	X-4904-203-1	WORM ASSY
117 ♀;X-4904-204-1	LEVER (B) ASSY, SIZE DETECTION	
118	X-4904-205-1	LIFTER SUB ASSY
119 ♀;X-4904-208-1	SHUTTER ASSY	
120 ♀;X-4904-209-1	BRACKET ASSY, MOTOR	

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
161	1-557-109-21	CORD, CONNECTION
162	3-701-630-00	BAG, POLYETHYLENE (INSTRUCTION MANUAL)
163	3-701-634-00	BAG, POLYETHYLENE (TURNTABLE)
164	3-701-806-00	ADAPTOR, 45, (E)
165 ♀;3-703-845-01	(US,Canadian)...LABEL(N), MAIN CAUTION	
166	3-773-769-11	(AEP,UK,E).....MANUAL, INSTRUCTION
167	3-773-769-21	(US,Canadian)....MANUAL, INSTRUCTION
168	3-773-769-31	(Canadian).....MANUAL, INSTRUCTION
169	3-773-769-41	(AEP).....MANUAL, INSTRUCTION
170	3-701-690-00	(UK)....LABEL (MADE IN JAPAN)
171	3-703-043-21	(UK)....LABEL, CAUTION, MAIN
172	3-703-396-00	(UK)....LABEL, CAUTION
173 ♀;4-876-344-00	(AEP)....LABEL, CAUTION, POWER CORD	
174 ♀;4-881-683-00	(E).....LABEL, VOLTAGE	
175	4-885-598-01	SCREWDRIVER, ADJUSTMENT
176	4-887-941-01	(AEP,UK,E).....SHEET, TURNTABLE
177	4-887-941-11	(US,Canadian)....SHEET, TURNTABLE
178	4-887-948-00	HOLDER, TURNTABLE
179	4-887-949-00	CUSHION
180	4-887-950-00	PROTECTOR
181	4-887-951-00	BOLSTER, ARM
182	4-887-952-00	CUSHION, ARM
183	4-904-254-01	INDIVIDUAL CARTON
184	4-904-257-01	(US,Canadian)....LABEL, MODEL NUMBER
185	4-904-258-01	(AEP)....LABEL, MODEL NUMBER
186	4-904-259-01	(UK)....LABEL, MODEL NUMBER
187	4-904-260-01	(E).....LABEL, MODEL NUMBER
188	4-904-261-01	(G-AEP)...LABEL, MODEL NUMBER

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CAPACITORS:

MF: μ F, PF: $\mu\mu$ F.

RESISTORS

- All resistors are in ohms.

• F : nonflammable

COILS

• MMH : mH, UH : μ H

SEMICONDUCTORS

In each case, U : μ , for example:
 UA...: μ A..., UPA...: μ PA..., UPC...: μ PC,
 UPD...: μ PD...

ELECTRICAL PARTS

Ref.No.	Part No.	Description
501	♦;1-508-799-00	BASE POST (U TYPE)
502	♦;1-508-800-13	U TYPE BASE POST 3P
503	♦;1-508-804-00	U TYPE BASE POST
504	Δ.1-526-565-00	(E3)....AC PLUG ADAPTOR
505	Δ.1-534-817-XX	(AEP).....CORD, POWER, EURO PLUG
505	Δ.1-551-472-00	(E).....CORD, POWER
505	Δ.1-551-506-XX	(US,Canadian)....CORD, POWER
505	Δ.1-556-562-00	(UK).....CORD, POWER
506	1-549-116-00	CARTRIDGE (VL-43GS)
507	1-551-294-00	CORD
508	
509	♦;1-608-536-00	PC BOARD, PRIMARY TRANSLATION
510	♦;1-608-883-00	PC BOARD, FG
511	♦;1-612-016-11	PC BOARD, MAIN
512	♦;1-612-017-11	PC BOARD, PHONO
513	♦;1-612-018-11	PC BOARD, CONTROL SW
514	♦;1-612-019-11	PC BOARD, POWER SW
515	♦;1-612-020-11	PC BOARD, INTERRUPT
516	♦;1-612-021-11	PC BOARD, SIZE SW
517	♦;1-612-022-11	(E)....PC BOARD, CONNECTOR
518	♦;1-612-023-11	PC BOARD, DECK SYNCHRO
519	A-4608-232-A	ROTOR ASSY
520	A-4608-233-A	STATOR ASSY
521	♦;A-4619-226-A	(US).....MOUNTED PCB, MAIN
521	♦;A-4619-231-A	(E).....MOUNTED PCB, MAIN
521	♦;A-4619-232-A	(Canadian)....MOUNTED PCB, MAIN
521	♦;A-4619-233-A	(AEP,UK)....MOUNTED PCB, MAIN
C101	1-161-494-00	CERAMIC 0.022MF 30% 25V
C102	1-123-645-00	ELECT 33MF 20% 6.3V
C103	1-161-494-00	CERAMIC 0.022MF 30% 25V
C104	1-162-113-00	CERAMIC 0.01MF 30% 16V
C105	1-130-885-00	FILM 0.15MF 5% 50V
C106	1-123-380-00	ELECT 1MF 20% 50V
C107	1-123-356-00	ELECT 10MF 20% 16V
C108	1-123-379-00	ELECT 0.47MF 20% 50V
C110	1-162-113-00	CERAMIC 0.01MF 30% 16V
C111	1-162-113-00	CERAMIC 0.01MF 30% 16V
C112	1-108-361-00	MYLAR 0.056MF 10% 50V
C113	1-108-361-00	MYLAR 0.056MF 10% 50V
C114	1-123-333-00	ELECT 100MF 20% 16V
C115	1-123-333-00	ELECT 100MF 20% 16V
C116	1-123-296-00	ELECT 220MF 20% 6.3V
G117	Δ.1-123-337-00	ELECT 1000MF 20% 25V
G118	Δ.1-123-337-00	ELECT 1000MF 20% 25V
C119	1-123-611-00	ELECT 1MF 20% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C120	1-162-113-00	CERAMIC 0.01MF 30% 16V
C121	1-162-113-00	CERAMIC 0.01MF 30% 16V
C122	1-162-113-00	CERAMIC 0.01MF 30% 16V
C123	1-161-494-00	CERAMIC 0.022MF 30% 25V
C124	1-162-113-00	CERAMIC 0.01MF 30% 16V
C125	1-162-113-00	CERAMIC 0.01MF 30% 16V
C126	1-162-113-00	CERAMIC 0.01MF 30% 16V
C127	1-162-113-00	CERAMIC 0.01MF 30% 16V
C128	1-162-113-00	CERAMIC 0.01MF 30% 16V
C129	1-162-102-00	CERAMIC 220PF 10% 50V
C132	1-161-494-00	CERAMIC 0.022MF 30% 25V
C133	1-162-113-00	CERAMIC 0.01MF 30% 16V
C134	1-161-494-00	CERAMIC 0.022MF 30% 25V
C135	1-123-351-00	(E)...ELECT 0.47MF 20% 50V
C136	1-162-113-00	CERAMIC 0.01MF 30% 16V
C137	1-162-113-00	CERAMIC 0.01MF 30% 16V
C190	1-123-356-00	ELECT 10MF 20% 25V
CNJ502	1-562-067-00	(E)....SOCKET, CONNECTOR 5P
CNP507	1-564-358-00	PIN, CONNECTOR 3P
D101	8-719-910-68	DIODE HZ6C2L
D102	Δ.8-719-200-02	DIODE 10E-2
D103	Δ.8-719-200-02	DIODE 10E-2
D104	Δ.8-719-200-02	DIODE 10E-2
D105	Δ.8-719-200-02	DIODE 10E-2
D190	8-719-911-19	DIODE ISS119
D191	8-719-911-19	DIODE ISS119
D201	8-719-101-11	DIODE SR110
D301	8-719-906-58	DIODE GL-5HD21
D302	8-719-906-58	DIODE GL-5HD21
D303	8-719-906-58	DIODE GL-5HD21
H101	8-719-800-17	DIODE THS102A
H102	8-719-800-17	DIODE THS102A
IC101	8-759-600-02	IC M5218L
IC102	8-759-602-65	IC CX-065B
IC103	8-759-600-02	IC M5218L
IC104	8-759-800-88	IC LM6417E-343
IC105	8-759-600-02	IC M5218L
L101	1-407-177-XX	MICRO INDUCTOR 470UH
L102	1-407-177-XX	MICRO INDUCTOR 470UH
M301	1-541-163-00	MOTOR
APT101	1-446-101-41	(US,Canadian)....TRANSFORMER, POWER
APT101	1-446-825-31	(E).....TRANSFORMER, POWER
APT101	1-447-774-11	(AEP)....TRANSFORMER, POWER
APT101	1-447-775-11	(UK)....TRANSFORMER, POWER

NOTE:

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- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF:μF, PF:μF.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

• MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
 UA...: μA..., UPA...: μPA..., UPC...: μPC,
 UPD...: μPD...

The components identified by shading and mark Δ are critical for safety.
 Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
 Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref. No.	Part No.	Description
Q101	8-729-245-83	TRANSISTOR 2SC2458
Q102	8-729-177-43	TRANSISTOR 2SD774
Q103	8-729-900-38	TRANSISTOR DTA114EF
Q104	8-729-245-83	TRANSISTOR 2SC2458
Q105	8-729-900-87	TRANSISTOR DTC124XF
Q106	8-729-900-87	TRANSISTOR DTC124XF
Q107	8-729-802-34	TRANSISTOR 2SD1388
Q108	8-729-802-22	TRANSISTOR 2SB1014
Q109	8-729-117-54	TRANSISTOR 2SA1175
Q110	8-729-201-83	(E)....TRANSISTOR 2SC3112
Q111	8-729-900-87	(E)....TRANSISTOR DTC124XF
Q112	8-729-177-43	TRANSISTOR 2SD774
Q113	8-729-374-02	TRANSISTOR 2SB740
Q114	8-729-177-43	TRANSISTOR 2SD774
Q115	8-729-374-02	TRANSISTOR 2SB740
Q201	8-729-101-13	TRANSISTOR PH103
R101	1-247-807-00	CARBON 100 5% 1/6W
R102	1-247-887-00	CARBON 220K 5% 1/6W
R103	1-247-903-00	CARBON 1M 5% 1/6W
R104	1-247-847-00	CARBON 4.7K 5% 1/6W
R105	1-247-847-00	CARBON 4.7K 5% 1/6W
R106	1-247-847-00	CARBON 4.7K 5% 1/6W
R107	1-247-831-00	CARBON 1K 5% 1/6W
R108	1-247-831-00	CARBON 1K 5% 1/6W
R109	1-247-831-00	CARBON 1K 5% 1/6W
R110	1-247-831-00	CARBON 1K 5% 1/6W
R111	1-247-831-00	CARBON 1K 5% 1/6W
R112	1-247-887-00	CARBON 220K 5% 1/6W
R113	1-247-887-00	CARBON 220K 5% 1/6W
R114	1-202-459-00	SOLID 1.5M 5% 1/4W
R115	1-202-459-00	SOLID 1.5M 5% 1/4W
R116	1-247-815-00	CARBON 220 5% 1/6W
R117	1-247-815-00	CARBON 220 5% 1/6W
R118	1-247-887-00	CARBON 220K 5% 1/6W
R119	1-247-815-00	CARBON 220 5% 1/6W
R120	1-247-815-00	CARBON 220 5% 1/6W
R121	1-247-887-00	CARBON 220K 5% 1/6W
R122	1-247-121-00	CARBON 390 5% 1/4W
R123	1-247-787-00	(Canadian,AEP,UK,E)...CARBON 15 5% 1/6W
R124	1-247-831-00	CARBON 1K 5% 1/6W
R125	1-247-121-00	CARBON 390 5% 1/4W
R126	1-202-852-00	(Canadian,AEP,UK,E)...SOLID 4.7 1/4W
R127	1-214-767-00	METAL 39K 1% 1/4W
R128	1-214-780-00	METAL 130K 1% 1/4W
R129	1-247-863-00	CARBON 22K 5% 1/6W

ELECTRICAL PARTS

R130	1-247-863-00	CARBON 22K 5% 1/6W
R131	1-247-855-00	CARBON 10K 5% 1/6W
R132	1-247-855-00	CARBON 10K 5% 1/6W
R133	1-247-855-00	CARBON 10K 5% 1/6W
R134	1-247-855-00	CARBON 10K 5% 1/6W
R135	1-247-855-00	CARBON 10K 5% 1/6W
R136	1-247-855-00	CARBON 10K 5% 1/6W
R137	1-247-855-00	CARBON 10K 5% 1/6W
R138	1-247-855-00	CARBON 10K 5% 1/6W
R139	1-247-855-00	CARBON 10K 5% 1/6W
R140	1-247-855-00	CARBON 10K 5% 1/6W
R141	1-247-825-00	CARBON 560 5% 1/6W
R142	1-247-831-00	CARBON 1K 5% 1/6W
R143	1-247-831-00	CARBON 1K 5% 1/6W
R144	1-247-831-00	CARBON 1K 5% 1/6W
R145	1-247-831-00	CARBON 1K 5% 1/6W
R146	1-247-831-00	CARBON 1K 5% 1/6W
R147	1-247-831-00	CARBON 1K 5% 1/6W
R148	1-247-831-00	CARBON 1K 5% 1/6W
R149	1-247-831-00	CARBON 1K 5% 1/6W
R150	1-247-857-00	CARBON 12K 5% 1/6W
R151	1-247-855-00	CARBON 10K 5% 1/6W
R152	1-247-855-00	CARBON 10K 5% 1/6W
R153	1-247-825-00	CARBON 560 5% 1/6W
R154	1-247-855-00	CARBON 10K 5% 1/6W
R155	1-247-851-00	CARBON 6.8K 5% 1/6W
R156	1-247-807-00	CARBON 100 5% 1/6W
R157	1-247-890-00	(E)...CARBON 300K 5% 1/6W
R158	1-247-855-00	CARBON 10K 5% 1/6W
R159	1-247-855-00	CARBON 10K 5% 1/6W
R160	1-247-855-00	CARBON 10K 5% 1/6W
R161	1-247-869-00	CARBON 39K 5% 1/6W
R162	1-247-862-00	CARBON 20K 5% 1/6W
R163	1-247-863-00	CARBON 22K 5% 1/6W
R164	1-247-831-00	CARBON 1K 5% 1/6W
R165	1-247-855-00	CARBON 10K 5% 1/6W
R166	1-247-815-00	CARBON 220 5% 1/6W
R167	1-247-861-00	CARBON 18K 5% 1/6W
R168	1-247-847-00	CARBON 4.7K 5% 1/6W
R169	1-247-855-00	CARBON 10K 5% 1/6W
R170	1-247-827-00	CARBON 680 5% 1/6W
R171	1-247-871-00	(E)...CARBON 47K 5% 1/6W
R172	1-247-794-00	CARBON 30 5% 1/6W
R173	1-247-879-00	(E)...CARBON 100K 5% 1/6W
R174	1-247-879-00	(E)...CARBON 100K 5% 1/6W

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- All resistors are in ohms.
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- MMH : mH, UH : μH

SEMICONDATORS

In each case, U : μ, for example:
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 UPD...: μPD...

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ELECTRICAL PARTS

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>				
R175	1-247-831-00	CARBON	1K	5%	1/6W	
R176	1-247-831-00	(E)...CARBON	1K	5%	1/6W	
R190	1-247-847-00	CARBON	4.7K	5%	1/6W	
RV101	1-226-234-00	RES, ADJ, CARBON	2K			
RV102	1-226-234-00	RES, ADJ, CARBON	2K			
RV103	1-226-235-00	RES, ADJ, CARBON	5K			
RV104	1-226-235-00	RES, ADJ, CARBON	5K			
RV105	1-226-237-00	RES, ADJ, CARBON	20K			
RV106	1-228-238-00	RES, ADJ, METAL GLAZE	20K			
S101	1-554-764-11	SWITCH (CAM)				
S301	1-553-856-00	SWITCH, KEY BOARD (START/STOP)				
S302	1-553-856-00	SWITCH, KEY BOARD (ARM LIFTER)				
S303	1-553-856-00	SWITCH, KEY BOARD (SPEED 45/33)				
S304	1-553-856-00	SWITCH, KEY BOARD (REPEAT)				
S401	1-554-205-00	SWITCH, PUSH (SIZE SELECTOR)				
S801 A	1-553-028-00	(E)...SWITCH, SLIDE (VOLTAGE SELECT)				
S901 A	1-553-331-21	SWITCH, PUSH (AC POWER)				

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers ($\Delta-\Delta\Delta\Delta-\Delta\Delta\Delta-XX$ or $\Delta-\Delta\Delta\Delta-\Delta\Delta\Delta-X$) may be different from those used in the set.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF: μ F, PF: $\mu\mu$ F.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

MMH : mH, UH : μ H

SEMICONDUCTORS

In each case, U : μ , for example:
 UA... : μ A..., UPA... : μ PA..., UPC... : μ PC,
 UPD... : μ PD...

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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